

## FIRST RECORDS OF THE MARINE INTERTIDAL COLLEMBOLAN *XENYLLA AFFINIFORMIS* (HYPOGASTRURIDAE) FOR NORTH AMERICA<sup>1</sup>

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ABSTRACT: *Xenylla affiniformis*, previously known from Europe, the Azores, and Australia, is reported from Hancock County, Maine, and Monroe County, Florida, confirming the Nearctic distribution of this species.

*Xenylla affiniformis* Stach, 1930, has been found in coastal areas of France, the Azores, and Australia and exhibits numerous morphological adaptations which appear to be related to its marine intertidal mode of life (Gama and Deharveng, 1984).

Twenty-eight specimens of *X. affiniformis* were found in a sample of sand and beach litter of approximately 1000 cc collected from the shore of Penobscot Bay, Hancock County, Castine, Maine, in August 1983. Specimens of *X. affiniformis* were also found in a similar sample of sand and decomposing seaweed collected from the shore of Windley Key, Monroe County, Florida, in December 1985. This species is not listed in the key to Collembola of North America by Christiansen and Bellinger (1980-81) and in so far as is known has not previously been recorded from North America. Voucher specimens in ethanol have been deposited in the West Virginia University Collection.

*Xenylla affiniformis* keys out to *Xenylla humicola* (Fabricius), 1780 in Christiansen and Bellinger (1980-81) but differs from North American (and most other) *Xenylla* species in that it lacks anal spines. *X. affiniformis* inhabits littoral environments and among its morphological modifications, this species possesses very distinctive elongate mandibles. The contrast between the mandibles of *X. affiniformis* and *Xenylla grisea* Axelson, 1900 is illustrated in Figures 1 and 2.

Gama and Deharveng (1984) redescribed *X. affiniformis* and proposed the new genus *Haloxenylla* for this species. Murphy (1965) proposed the subgenus *Paraxenylla* for *Xenylla mangle* which he described as a new species. However, Dr. Gama, in personal communication, states that

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*X. mangle* and *X. affiniiformis* are synonyms thus *Haloxenylla* and *Paraxenylla* are synonyms (Bellinger, Department of Biology, California State University, Northridge, pers. comm.).

The fact that this species was found for the first time in the United States in both of two small samples collected at two very distinct locations serves as an example of a great need for research on soil microarthropods.

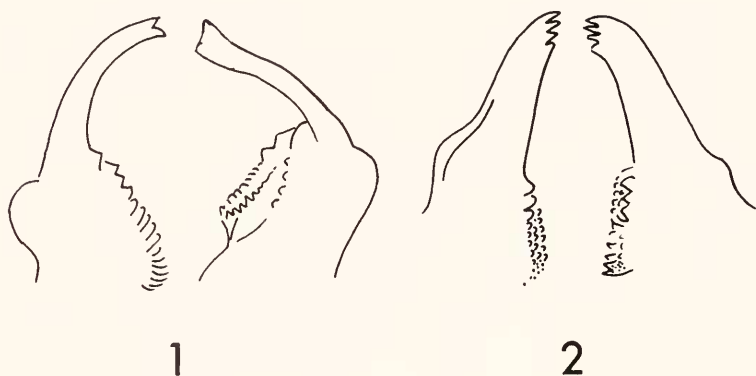


Fig. 1. 1. Mandibles of *Xenylla affiniiformis* Stach, 1930. 2. Mandibles of *Xenylla grisea* Axelson, 1900.

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